

*An Extract*  
*Of a Letter of M. Pecquet to M. Car-*  
*cavi, concerning a New Discovery of the*  
*Communication of the Ductus Thoracicus*  
*with the Emulgent Vein: Taken out of the*  
*Journal des Scavans, N. VII. 1667.*

I Cannot forbear longer to inform you of the Experiments, which M. Perrault, M. Gayant, and I, made last Night upon the Corps of a Woman, that died some few dayes after she was brought to bed.

Our Design was to continue the Discovery of the Vessels, that carry the Chyle to the Breasts, of which I have indicated the Way, pag. 134. of the *Second Edition* of my *Anatom. Experiments*, printed 1654. But the Body being not fit for that, we referred the search thereof to another time; and we have had the good fortune to make another Discovery, which may prove not less useful to *Physick*; it is the *Communication of the Milky Channel*, now call'd the *Ductus Thoracicus, with the Emulgent Vein*. The Experiments were these:

I M. Gayant having discovered the *Ductus Thoracicus* upon the 7th and 8th of the *Vertebra's* descending from the Back, inserted a Quill into the said *Ductus*, and having tied it upon the Quill, he did blow into it: whereupon the *Ductus* was fill'd with wind from the Quill unto the *Subclavial Vein*. This wind issued at the *Ascending Cava*, which had been cut, when he, whose the Corps was, had lifted up the heart to make the demonstration of it; M. Gayant would tie this *Cava*, but it was cut so short, that the Ligature could not hinder the wind to issue out of it; which was the cause, that it could not be thrust as far as the Breasts. I would supply this defect, by compressing with my finger that place of the Vein, at which the wind came out (which was at about the third *Vertebra*, descending from the Back) and M. Gayant having  
blown

blown afresh into it, I compressed with my fingers the *Vena Cava* and the *Ductus Thoracicus* together ; but the wind , that was thrust into this Channel, shewed us, that it had another way to escape. And indeed we saw as often as we did blow , that the *Emulgent Vein* was on the left side filled with wind , and that thereupon the body of the *Vena Cava* also filled itself from the *Emulgent* unto the *Iliacues*. This wind seem'd to us to come from the *Left Kidney* , and to insinuate it self into the *Emulgent Vein* , and thence into the *Cava*. The *Right Kidney* had been removed , so that we could say nothing of its communication with the said *Ductus* : That shall be for another time.

The Question was made , Whether the wind , that seem'd to enter into the *Emulgent* , and the *Cava* , did there enter indeed , or, whether it did not slide , betwixt the proper coat of this Vein, and that common one , which comes to it from the *Peritoneum* ? This Question did oblige us to slit the *Cava* at the place of the *Emulgent* ; and then blowing into the *Ductus Thoracicus* , we saw, that the wind , which had swelled the *Emulgent* , did escape at the opening, just now made in the *Cava*.

This Experiment made us judge , there was a communication of the *Ductus Thoracicus* with the *Left Kidney* , or at least with the *Emulgent Vein* , in the Body of this Woman. And to clear it the more, we made the following Experiment.

2. We lifted with the hand the Lungs , that filled the left Cavity of the *Thorax* , and having cleansed this Cavity with a Sponge , M. *Gayant* did blow into the *Ductus Thoracicus* , whilst I compressed the *Vein* and the *Ductus* with my fingers upon the third *Vertebra*, descending from the Back : And we saw the wind insinuate it self under the *Pleura* , by a trace , which raised it suddenly as often as we did blow. This trace appeared from the 4th *Vertebra* descending unto the *Diaphragme* , and made us conclude, that there was under the *Pleura* a Channel of Commerce coming from the *Ductus Thoracicus* , and passing to the *Emulgent Vein* by this Cavity of the *Thorax*. We could not doubt, but that this Channel, which passed under the *Pleura* , went as far as to the *Kidney* , because we saw , that the wind did get in on the side of the *Kidney* into the *Emulgent Vein* , and came out at the hole of the

the *Cava*, that had been made in the first Experiment. We perceived, that this Channel of Communication came from the *Ductus Thoracicus*, at the place of the fourth *Vertebra* of the Back. But to be the surer of it, we made the following Experiment.

3. I compressed with my fingers the *Ductus* upon the *fifth* descending *Vertebra* of the Back; and M. *Gayant* having blown into the Quill, which was upon the *seventh*, the wind passed not to the *Kidney*, nor to the *Emulgent Vein*. Which made us conclude, that the Communication was not beneath the *fifth Vertebra*. Then I compressed with my fingers the *Ductus Thoracicus* and the *Vena Cava* upon the *third* descending *Vertebra*; and the *Emulgent* swelled, when M. *Gayant* blew into the Quill: Which gave us more strongly to believe, That the place of the *Ductus Thoracicus*, whence goes the Channel of Commerce with the *Emulgent*, was between the third and fifth *Vertebra* of the Back, as the wind had informed us in the second Experiment.

To be yet more assured thereof, M. *Gayant* split the *Ductus Thoracicus* upon the *third Vertebra* of the Back, and having blown into it at the Quill, the wind came out at the *Axillary Vein*, and the *Ascending Cava*; but the *Emulgent* swelled not at all.

We made a *fourth* Experiment, which seemed very curious to us, and will not be misl to relate here; *viz.*

4. M. *Gayant* having blown into the *Aorta*, whereof all the branches, that had been cut, were tied up, it swelled immediately, and the *Emulgent Artery* grew tumid at the same time: but the wind, that was protruded thorow the *Emulgent Artery* into the *Left Kidney*, returned not into the *Emulgent Vein*; which taught us, that the *Blood* often passeth, where the *Air* does not.

We have an evident proof of it in the *Kidney*, since that the *Blood* of the *Emulgent Artery*, which goes to the *Kidney*, returns thorow the *Emulgent Vein* into the *Vena Cava*, pursuant to the Rules of the Circulation of the *Blood*; and that the *Air* propelled thorow the *Emulgent Artery* into the *Kidney*, comes not back thorow the *Emulgent Vein* into the *Vena Cava*.

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We have yet another proof thereof in the *Lungs*, from the Experiment, we made of it in the Assembly upon the Corps of a Woman, that was there dissected in the beginning of *February* last; where we saw, that the *Air*, which was propelled thorow a Quill into the *Vena Arteriosa* (which is the *Artery* of the *Lungs*) returned not thorow the *Arteria Venosa* (which is the *Vein* thereof) into the *Left Ventricle* of the Heart; though, by the Circulation, the *Blood* pass there with ease; and even *Milk*, which having been let in by this *Vena Arteriosa*, returned easily thorow the *Arteria Venosa*, into the *Left Ventricle* of the Heart.

I draw no consequence from these Trials, as to the Channel of Communication; that passes from the *Ductus Thoracicus* into the *Emulgent Vein*; because one ought to infer nothing from one one-body. When we shall be certain, that this *Channel of Commerce* is found in *Men*, as well, as we have found it in this *Woman*, we shall then judge better of it. We are therefore going to make frequent Operations upon divers Animals, to see whether we shall there meet with any thing like it, to the end we may impart it to the Publick.

## *A Description Of several Kinds of Granaries, as those of London, of Dantzick, and in Muscovy.*

*Concerning the Granaries of London, the Inquisitive Dr. Merret,  
(who indeed occasion'd the Inquiry into the rest, as a thing,  
which many were desirous to be informed about, for the better  
Preservation of Grain, in times of its Plenty) gives this Account  
of them.*

**A**LL the Twelve Companies of *London*, and some other Companies and Private Persons, have their Granaries at the Bridge-House in *Southwark* (where are a Justice of the Peace, a Steward, and two Masters.) These Granaries are built on two sides of an *Oblong*; one whereof stands *North* and *South*, and is near 100 yards long, whose Lettice-windows respect *North-East*, the other side may be about 50 yards long; the Windows look to the  
*North,*